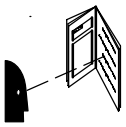
FIELD INSTRUCTIONS

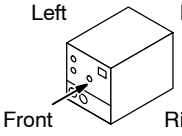
2009−01 FORM: F241 463B

Use above FORM number when ordering extra manuals.

For PipeWorx 400 Calibration Procedure Use A Calibration Card

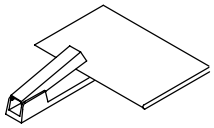


Have only trained and qualified persons install, operate, or service this unit. Call your distributor or the equipment manufacturer if you do not understand the directions. For WELDING SAFETY and EMF information, read Owner's Manual.



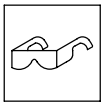
All directions are given as facing front panel.

Keep hardware for reuse.

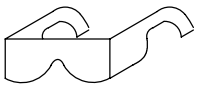


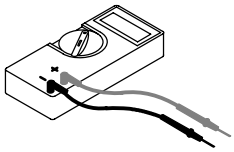
Staple these instructions inside Owner's Manual.

1. Safety Symbol Definitions

	DANGER! – Indicates a hazardous situation which, if not avoided, will result in death or serious injury. The possible hazards are shown in the adjoining symbols or explained in the text.		Beware of electric shock from welding electrode or wiring. Touching the electrode while in contact with the work or ground can cause electric shock. Always wear dry gloves. Keep all panels and covers closed.
	Indicates a hazardous situation which, if not avoided, could result in death or serious injury**.** The possible hazards are shown in the adjoining symbols or explained in the text.		Wear safety glasses with side shields.
NOTICE	*Indicates statements not related to personal injury.*		
☞	*Indicates special instructions.*		

2. Tools Needed

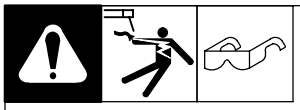


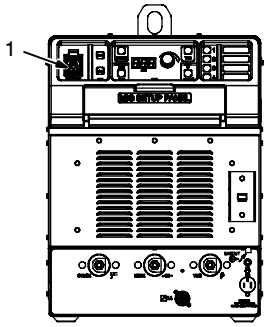


DC ammeter (e.g. Fluke 337)

☞ *Meters must be calibrated.*

3. Location Of Memory Card Slot





1 Memory Card Slot

805 143-A

4. Power Source Calibration Procedure

A. Required Equipment

1. Calibrated DC voltmeter and clamp-on DC ammeter (e.g. Fluke 337)
2. Calibration Card
3. Shorting cable (2/0)

B. Calibration Procedure

1. Disconnect cables from all output studs.

2. Turn on power to the welding system.
3. Insert Calibration card.
    a. Lift and hold memory card access cover open.
    b. Insert memory card into slot (push card all the way into slot and then release).
    c. Close memory card access cover.
    d. Power source will display CAL.
4. Calibrate MIG voltage as follows:
    a. Connect voltmeter from MIG stud (on rear of unit) to Work stud (front center).
    b. Press memory 1 button on the power source front panel. Open circuit voltage should now be present from MIG output stud to the Work stud.
    c. Using the knob on the power source front panel, set the display voltage to the measured value on the voltmeter.
    d. Press memory 1 button on the power source front panel to end the MIG voltage calibration.
    e. Power source will display CAL.
5. Calibrate TIG voltage as follows:
    a. Connect voltmeter from Work stud (front center) to TIG stud (front right).
    b. Press memory 2 button on the power source front panel. Open circuit voltage should now be present from TIG output stud to the Work stud.
    c. Using the knob on the power source front panel, set the display voltage to the measured value on the voltmeter.
    d. Press memory 2 button on the power source front panel to end the TIG voltage calibration.
    e. Power source will display CAL.
6. Calibrate STICK voltage as follows:
    a. Connect voltmeter from STICK stud (front left) to Work stud (front center).
    b. Press memory 3 button on the power source front panel. Open circuit voltage should now be present from STICK output stud to the Work stud.
    c. Using the knob on the power source front panel, set the display voltage to the measured value on the voltmeter.
    d. Press memory 3 button on the power source front panel to end the STICK voltage calibration.
    e. Power source will display CAL.
7. Calibrate amperage as follows:
    a. Connect shorting cable from STICK stud (front left) to Work stud (front center).
    b. Attach clamp-on ammeter around shorting cable.
    c. Press memory 4 button on the power source front panel. Amperage should now be flowing in the shorting cable.
    d. Using the knob on the power source front panel, set the display amperage to the measured value on the ammeter.
    e. Press memory 4 button on the power source front panel to end the amperage calibration.
    f. Power source will display CAL.
    g. Disconnect shorting cable.
8. Remove Calibration card as follows:
    a. Lift and hold memory card access cover open.
    b. Push in and release memory card to eject card.
    c. Grasp memory card and remove from slot.
    d. Close memory card access cover.
9. Turn off power to the welding system.